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ABSTRACT

The presence of conflict-producing situations for higher education administrators is examined. Basic theory and constructs from organizational behavior research are integrated into a causal model to offer a more comprehensive understanding of role stress and commitment to the university. Research shows direct relationships between degree of role conflict and various work-related outcomes such as job related tension, anxiety, and dissatisfaction; propensity to leave; lack of confidence; and inability to influence decision making. Studies show a relationship between high levels of role conflict and ambiguity and decreased organizational commitment. This study includes entry-level and low-level administrators as well as those at mid- and high-levels. A theoretical perspective is given with an overview of the integrated theoretical framework used to develop the proposed causal model tested in the study. Variables and instrumentation include age, job tenure, sex, years in higher education, role orientation, administration, organizational level, formalization, role conflict, role ambiguity, and organizational commitment. Methods, procedures, and data sources are noted. Results are discussed in terms of causal influences on role conflict, role ambiguity, and organizational commitment. Specific findings on age and sex suggest that university organizations should make an effort to retain competent administrators and to recruit more qualified women administrators. Minimizing conflict and ambiguity should serve to minimize their negative impact on commitment to the university. Three appendices include: the higher education administrator survey used in the study; a comparison of alpha reliability estimates obtained in current sample with those previously reported (N=362); and scale and descriptors for the variable--organizational level. Tables are included. Contains 29 references.(SM)

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CAUSES AND CONSEQUENCES OF ROLE STRESS AMONG HIGHER EDUCATION ADMINISTRATORS

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Introduction

According to Etzioni (1964), we are born in organizations, educated by organizations, work for organizations, and spend considerable leisure time paying, playing, and praying in organizations. Indeed, many have referred to this phenomenon as an organizational revolution. This revolution has been accompanied by a concomitant growth of research in organizational behavior.

Colleges and universities are complex organizations, and like other organizations, they are characterized by goals, hierarchical systems and structures, decision-making processes, and officials who carry out specified duties (Baldridge, Curtis, Ecker, & Riley, 1983). Despite such characteristics, universities have not traditionally been viewed as formal organizations nor have they been empirically investigated as such. This dearth of research is partially due to the fact that while in many ways universities are similar to other organizations, there are also important distinguishing characteristics. Among the characteristics peculiar to higher education are: goal ambiguity, client service, unclear and problematic technologies, professionalism and environmental vulnerability (Baldridge et al., 1983).

The impetus for this research came from pleas for more empirical analyses of the academic organization itself and of those who occupy key roles within it (Moore, 1981). Since much empirical work had already been undertaken in non-academic settings, it was decided to determine whether or not theoretical perspectives developed and applied in non-academic settings could provide some insight into the nature of the university organization.

The Problem

Investigations of the people and processes of higher education have traditionally focused on students and faculty. While these studies have provided much insight into the needs and concerns of these groups, considerably less is known about the needs and concerns of administrators.

One aspect of the academic organization that has become the focus of increased interest is the presence of conflict producing situations. Such situations may result when an administrator is torn between expectations of the local

departments and those of central administration, or when persons with strong professional orientations assume managerial roles. Both Austin (1984) and Scott (1978) have observed that university administrators experience excessive demands on their time, considerable role conflict and stress, and limited opportunities for mobility. Bennett (1982) has noted as well that ambiguity and abrupt transitions in administrator roles have contributed to uncertainty with regard to specific role expectations.

Evidence has been reported of direct relationships between degree of role conflict and various work-related outcomes, including job-related tension and anxiety, job dissatisfaction, propensity to leave, lack of confidence in the organization and inability to influence decision-making (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964; House & Rizzo, 1972; Rizzo, House & Lirtzman, 1970; Tosi, 1971). In addition, more recent studies have reported a strong relationship between high levels of both role conflict and ambiguity and decreased organizational commitment (Davis, 1981; Mowday, Porter, & Steers, 1982). It is probably safe to speculate that one or a combination of several of the identified negative consequences may occur somewhere in the complex of roles assumed by the university administrator.

Since the presence of role conflict and ambiguity has been associated with negative effects on both the individuals and organizations involved, it is important to identify the extent of each, as well as antecedent and consequent variables. While several authors have addressed the problem of role stress among administrators from a theoretical perspective, few empirical investigations have been undertaken. Most studies of role conflict and ambiguity have been conducted in non-academic organizations (Jackson & Schuler, 1985). In addition, many of the studies that have focused on administrators in higher education have restricted their samples to mid-level and/or high-level administrators. Inclusion in this study of entry-level and lower-level administrators has provided a more complete understanding of role stress at all levels of the university organization.

Sagaria and Johnsrud (1987) have highlighted some additional weaknesses in the research on administrative roles. In their review of research on mid-level administrators careers, they concluded that most of the research was idiosyncratic in nature and lacking in conceptual clarity. They noted further that the research

seldom built upon existing investigations or tested theories. These authors suggest that what is needed are studies that apply and test constructs and models from other established disciplinary traditions. While these criticisms were directed at research focused on mid-level administrators, they are equally valid regarding research on administrators in general. In an effort to address the weaknesses and limitations identified, the present study uses well developed theory and constructs from organizational behavior research. These constructs are integrated into a causal model that may help provide a more comprehensive understanding of role stress and commitment to the university.

Theoretical Perspective

Role theory and the psychology of organizational commitment provided the unifying framework for this investigation. Role theory posits that social structures (positions and patterns of behavior woven into systematic and relatively enduring relationships) can create difficult, conflicting, or impossible demands for occupants of such structures. These demands may result in a condition known as role stress. Role conflict and role ambiguity are the two forms of role stress which provided the central focus of this study.

Role conflict is a form of role stress in which role expectations are clear, but at the same time contradictory or mutually exclusive. In the classical model of role theory developed by Kahn, Wolfe, Quinn, Snoek, and Rosenthal (1964), different types of role conflict are identified. The categories of role conflict conceptualized by Kahn et al., and operationalized by Rizzo, House, and Lirtzman (1970) include:

(1) Intra-sender Conflict - a form of sent-role conflict characterized by inconsistent expectations from a single member of the role set which may be incompatible, or when the availability of resources (i.e., time, money, one's own ability) are incongruent with expectations associated with the role;

(2) Inter-sender Conflict - a form of sent-role conflict which occurs when inconsistent expectations or demands are made on role occupants by one or more role senders, or when expectations between role senders are in opposition;

(3) Inter-role Conflict - a form of sent role conflict which occurs when a role occupant holds two or more roles simultaneously, such that compliance with expectations associated with one role creates conflict with another role; and,

(4) Person-role Conflict - a form of role conflict which occurs when role occupants internal standards or values and defined role expectations are incompatible.

Role ambiguity is another form of role stress and is characterized by vagueness and lack of agreement regarding role expectations. Although role ambiguity has not been as elaborately conceptualized as role conflict, various sources of this type of role stress have been identified and include: lack of clarity regarding scope of responsibility, vague and inconsistent role expectations, uncertainty regarding whose expectations should be met, and doubts regarding the means used to evaluate role performance (Hardy & Conway, 1978).

An additional focus of this study was an analysis of the impact of the two forms of role stress on organizational commitment. Commitment was included because the notion of shared sentiments and values among those united in pursuit of a common educational enterprise is essential to fulfillment of a university's mission. According to Mowday, Porter, and Steers (1982), commitment is best characterized as a process that unfolds over time and is viewed as a stable, slowly developing attachment to the organization. Thus, commitment has been described as an investment and accrual phenomenon. Such a perspective implies that the more an individual "invests" in the organization, the more attractive it becomes and the less likely the individual is to leave it.

The research reported here is a step toward understanding the complexity of the interrelationships involved in the development of role stress and commitment in the university organization.

The Model

This section provides an overview of the integrated theoretical framework utilized to develop the proposed causal model tested in the study. The sets of variables and their hypothesized linkages are presented in Figure 1. Note that variables have been classified as antecedents or consequences. Antecedent variables are further classified as individual characteristics and organizational characteristics. Variables that comprise individual characteristics are viewed as contributory antecedents to subsequent variables (namely, organizational characteristics, role characteristics, and organizational commitment). A brief description of the variables and instrumentation is provided below:

Age: viewed as an indicator of investment in the organization. With increased age there is often a reduction in the feasibility of obtaining desirable alternative roles or positions and a tendency to restrict the individual to his/her current organization.

Job Tenure: viewed as an indicator of ability -- in the sense that those who have performed in a given role for a certain period of time have more role-relevant information and are thus better able to cope with role stress. It is also viewed as an indicator of investment in an organization.

Sex: viewed as a given individual characteristic. Some research studies have demonstrated gender differences in commitment.

Years in Higher Education Administration: viewed as an indicator of ability. Experience accumulated in higher education administration provides information about an individual administrator's role, as well as information regarding the roles of other members of the organization.

Role Orientation: viewed as an indicator of preference for a professional or organizational role orientation. Where professional orientations predominate, professional norms are assumed to exist. This construct

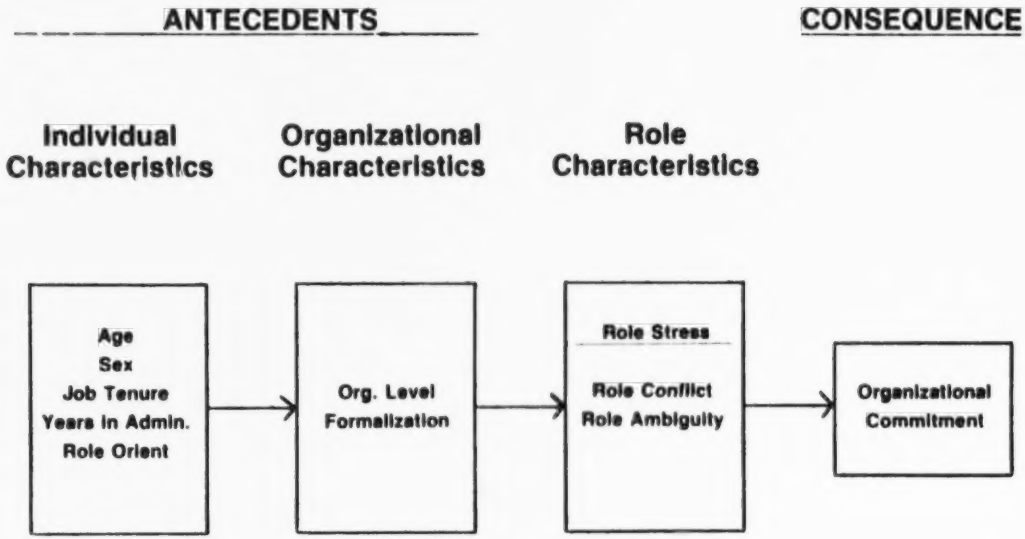

Figure 1. Depiction of theoretical framework

was measured with two 5-item scales designed to measure the strength of respondents identification with their profession and their employing organization (Miller & Wagner, 1971). (See Appendix A.)

Organizational level: viewed as hierarchically arranged roles or positions possessing administrative authority in varying degrees. Used as an indicator of organizational context because roles are created by the organization and thus exist somewhat independently of the individuals who occupy them. (See Appendix C for coding system employed.)

Formalization: viewed as an indicator of the existence of formalized organizational norms. Specification of organizational norms can increase clarity and thus reduce ambiguity; incongruence between organizational norms and professional norms can increase role conflict. The 8-item subscale of the Organization Description Questionnaire developed by House and Rizzo (1972) was used to measure this construct. (See Appendix A.)

Role Conflict: viewed as an indicator of objective role stress as perceived by role occupants. This form of role stress was measured with the 8-item scale developed by Rizzo, House, and Lirtzman (1970). (See Appendix A.)

Role Ambiguity: viewed as an indicator of objective role stress as perceived by role occupants and was measured with the 6-item scale developed by Rizzo, House, & Lirtzman (1970). (See Appendix A.)

Organizational Commitment: viewed as an indicator of the strength of an individual's identification with and involvement in a particular organization. Role-related characteristics are viewed as major determinants of organizational commitment. For the purposes of this study, organizational commitment serves as an indicator of institutional loyalty and was measured with a modified version of the 15-item instrument developed by Porter, Steers, Mowday, and Boulian (1974). (See Appendix A.)

Since few investigations of this nature have been undertaken with the intended population, the proposed model tested should be viewed as exploratory rather than confirmatory.

Review of Related Literature

Role Stress Among Administrators

In her analysis of the work experience of college and university administrators (presidents, deans, mid-level administrators), Austin (1984) noted that these role occupants are the keys to the success and quality of their institutions and that they face challenges and pressures different from their colleagues a decade ago.

A recent study of presidents, vice presidents, and deans in southern public higher education institutions revealed that role ambiguity among deans had a significant positive relationship with propensity to leave the organization (Jarrell, 1983). In addition, high levels of role ambiguity were associated with increased job-related tension in this group. In an intensive study conducted by Scott (1978), 200 deans and directors of support services were interviewed to determine the extent of role stress in collegiate middle-managers. The results of this study indicated that these groups experience lack of clarity with regard to their administrative roles. Furthermore, institutional loyalty (commitment), which was strong at the beginning of their tenure, tended to become attenuated. Scott concluded that such conflicts affected administrators identity as professionals, commitment to their work, and loyalty to the institution.

The existence of role conflict is supported in a study conducted by Medrano (1979). Exploring the theory that non-academic middle-managers experienced job-related anxiety, tension, conflict, and stress, Medrano studied 476 higher education administrators. A significant relationship was found between role conflict and job-related tension and satisfaction. Role ambiguity was not significantly related to any of the dependent variables, however.

The problems of role stress are found in the role of department chair or head as well. Darkenwald (1971) studied department chairs at 54 high, medium, and low differentiated institutions. These institutions differed with respect to institutional quality, research orientation, and size. In addition, the institutions differed with regard to degree of professional autonomy and administrative authority structure. Darkenwald found that department chairs from medium differentiated universities exhibited significantly

more decision-making conflict than their counterparts in low or highly differentiated institutions. Darkenwald attributed this finding to emergent faculty professionalism in combination with administrative resistance to relinquishing control over academic decision-making which caused conflict between academic departments and central administration.

Carroll (1974) confirmed the existence of conflict in department chairmen when he noted a significant relationship between perceived role conflict and reported need deficiency. In addition, Carroll noted that inter-sender conflict was the type most experienced by this group. Areas which proved to be the most conflict-producing included decisions with regard to faculty salary and promotion. These findings were confirmed in a more recent study conducted by Bragg (1980). Depth interviews with 39 new department heads revealed considerable evidence of inter-sender conflict, intra-sender conflict, and role ambiguity.

Consequences of Role Stress

Overview of consequences. Kahn et al. (1964), believe that dependability of role performance is one of the great inherent needs of any organization. The research of these authors focused upon individuals locations within the organization, pressures exerted by role senders and the consequences of role stress. They concluded that role conflict and ambiguity exact a price, both in terms of individual well-being and organizational effectiveness. Evidence has been reported of direct relationships between the degree of role conflict experienced by role occupants and various work-related outcomes as job-related tension and anxiety, job dissatisfaction, futility, propensity to leave, lack of confidence in the organization, inability to influence decision-making, and unfavorable attitudes toward role-senders (Kahn et al., 1964; Rizzo, House, & Lirtzman, 1970; Tosi, 1971; House & Rizzo, 1972; Bedeian & Armenakis, 1981).

Organizational Commitment. Additional research on the consequences of role conflict and ambiguity has demonstrated that these forms of role stress have a negative impact on organizational commitment. Research on commitment itself has been based upon two perspectives. One viewpoint has conceptualized commitment in terms of overt indicators

(e.g., behaviors that exceed role expectations); alternatively, the construct has been addressed from an attitudinal perspective. It is this latter perspective which is explored in the current study.

According to Mowday, Porter, and Steers (1982), commitment is best characterized as a process that unfolds over time. Unlike job satisfaction, which is viewed as a less stable attitude that may reflect contemporaneous job conditions, commitment is viewed as a more stable attachment to the organization which develops more slowly. Organizational commitment as defined by Porter et al. (1974), has three major components: (1) a strong belief in and acceptance of the organization's goals, (2) a willingness to exert considerable effort on behalf of the organization, and (3) a definite desire to maintain organizational membership.

Hypothesized antecedents of organizational commitment which have been supported empirically fall into four categories: (1) personal characteristics (e.g., age, tenure), (2) role-related characteristics (e.g., role conflict and ambiguity), (3) structural characteristics (e.g., organizational size, centralization of authority) and, (4) work experiences (e.g., feelings of personal importance) (Steers, 1977). While no less than 25 variables have been found to be related to organizational commitment, what is clearly lacking is an explanation of the dynamics involved and construction of a model of the commitment process (Mowday, et al., 1982).

Despite this shortcoming, most of the research lends support to Steers (1977) hypothesized antecedents. Welsch and LaVan (1981) found that role conflict and ambiguity are detrimental to organizational commitment. These findings confirm earlier work by Hrebiniak and Alutto (1972), whose research on teachers and nurses suggested that role-related variables are key determinants of organizational commitment.

A study of faculty, administration, and secretarial employees of a non-profit parochial university conducted by Davis (1981) revealed that both role ambiguity and age explained significant variation in organizational commitment and that furthermore, organizational commitment was a better correlate of intent to remain with the organization than job satisfaction.

A more recent study focused upon the patterns of commitment which exist among mid-level administrators. Austin (1984) identified three foci of commitment in this study. These foci included: the work role, the university, and the career in higher education administration. It is commitment to the university which is the focus of the current study.

Methods, Procedures, and Data Sources

Five hundred and fourteen (514) academic and non-academic administrators from the six publicly-supported, doctorate-granting universities in New England were sent a questionnaire containing measures of all variables in a single booklet. A 70% response rate was obtained, yielding a total sample of 362[1]. The study is ex post facto in nature as it attempts to make inferences about the relationships among variables without direct intervention (Kerlinger, 1986).

After conducting a series of analyses indicating no apparent response bias, the data were examined utilizing the path analysis technique. (See Footnote 1.) The path analytic procedure allows the researcher to test the significance of hypothesized causal influences of selected variables upon an outcome (Kenny, 1979). To explore the antecedents of role conflict and ambiguity, individual and organizational characteristics served as the hypothesized causal influences. In exploration of the impact of role stress on organizational commitment, individual and organizational characteristics, as well as role conflict and ambiguity, served as the hypothesized causal influences. (See Figure 2.) Data analysis proceeded in several phases:

1. Three separate path analyses were conducted on three sub-samples generated by pseudo-random splits of the total data set (n=191; n=171; n=226) for cross-validation purposes. This technique is akin to what Prescott (1987) calls "jack-knifing".

2. For each path analysis procedure, seven separate regression analyses were performed to generate the 46 path coefficients used to estimate the parameters of the path diagram.

3. Significant predictors obtained through cross-validation were used to develop a single, trimmed, preferred model which was compared to the fully saturated model for the total data set.

4. Subsequent analyses were conducted to estimate the direct, indirect, spurious, and unanalyzed effects.

Results

Causal Influences on Role Conflict

Three causal influences were retained in the trimmed model when role conflict served as the endogenous variable. The Beta weights are listed in Table 2 and entered as path coefficients in Figure 2. Associated summary statistics for this analysis are also provided in Table 2. Inspection of this table indicates that together formalization, organizational level and professional role orientation generated an adjusted R^2 of .132, suggesting that they were able to explain only 13% of the systematic variation in perceived role conflict among this group of respondents.

Decomposition of effects to examine the interrelationships among the variables indicates that, in addition to the direct effects exerted by the three causal influences, there are numerous unanalyzed effects as well. (See Table 3.) Degree of perceived formalization produces a moderate, negative effect on conflict. This suggests that a standard deviation increase in perceived formalization produces a -.279 standard deviation decrease in perceived role conflict, when other variables are held constant. Although the effect of professional role orientation is primarily direct (.160), there are indirect and unanalyzed effects exerted as well. The direct effect accounts for most of the observed effect and suggests that a standard deviation increase in professional role orientation produces a .160 standard deviation increase in perceived role conflict among the respondents in this study.

Table 2

Summary Statistics for the Regression of Each Endogenous Variable on the Trimmed, Preferred Model Variable Set in Total Sample (N=362)

Endogenous Variable	Predictors	Unstandardized Regression Weight (b)	Standard Error of b	Standardized Regression Weight (Beta)	Constant	R	Adjusted R^2	SEE	t
Organizational Commitment (N=348)	Ambiguity	-.199	.023	-.431					-8.666****
	Sex	-.255	.064	-.176					-3.990****
	Org. Orient.	.126	.033	.167					3.792****
	Conflict	.075	.022	-.163					-3.327****
	Age	.011	.003	.147					3.317****
					4.133	.610	.363 .373	.419	
Conflict (N=352)	Formalization	-.250	.045	-.279					-5.603****
	Prof. Orient.	.253	.087	.160					2.905***
	Org. Level	-.098	.038	-.141					-2.563***
					4.930	.374	.132 .140	1.06	
Ambiguity (N=348)	Formalization	-.439	.040	-.500					-11.090****
	Years Admin.	-.039	.008	-.251					-5.142****
	Age	.021	.008	.135					2.769***
					4.350	.548	.294 .300	.940	
Organizational Level (N=351)	Years Admin.	.122	.013	.515					9.271****
	Job Tenure	-.115	.017	-.348					-6.853****
	Org. Orient.	.547	.104	.234					5.240****
	Prof. Orient	-.459	.104	-.201					-4.415****
					3.466	.671	.444 .451	1.21	
Professional Orientation (N=351)	Years Admin.	-.052	.006	-.526					-9.183****
	Job Tenure	.017	.008	.119					2.068**
					3.369	.470	.216 .221	.616	
Organizational Orientation (N=354)	Years Admin.	.055	.006	.556					9.601****
	Job Tenure	-.037	.008	-.264					-4.529****
	Age	-.018	.005	-.188					-3.571****
	Sex	-.261	.091	-.138					-2.872***
					3.686	.480	.222 .231	.614	

Note. Differences in sample sizes for each endogenous variable reflect the selective deletion of influential outliers and missing data.

Note. No significant predictors of formalization; therefore, no summary statistics.

$p \leq .001$ ****
$p \leq .01$ ***
$p \leq .05$ **
$p \leq .10$ *

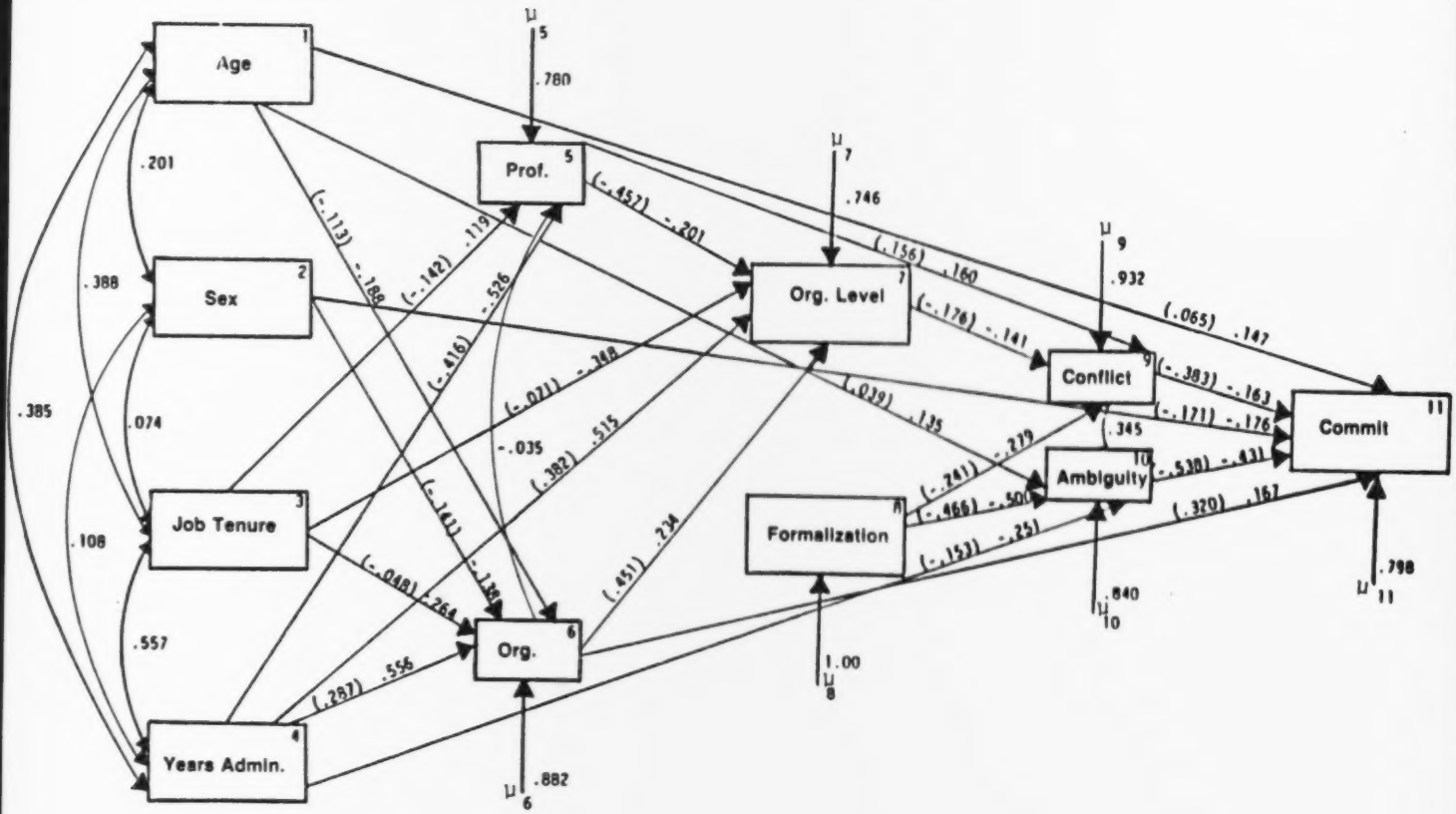

Figure 2. Eleven variable trimmed preferred model depicting antecedents of role stress and organizational commitment $\mu = \sqrt{(1-R^2)}$

The effects of organizational level are about equally divided between the direct, negative effect (-.141) and unanalyzed effect (-.107). The direct effect suggests that as respondents achieve higher level roles and positions, they experience a decrease in perceived role conflict.

Causal Influences on Role Ambiguity

Three variables were retained in the trimmed model exploring the antecedents of ambiguity. These variables and their associated summary statistics are also displayed in Table 2. Inspection of the table reveals that formalization, years in higher education administration, and age were retained. A comparison of the adjusted R^2 obtained for ambiguity (.294) with that obtained for conflict (.132) indicates that the model has more explanatory power for this form of role stress than it does for conflict.

Inspection of Table 3 and Figure 2 indicates that degree of perceived formalization has a substantial direct, negative effect on ambiguity (-.500). The magnitude of this effect suggests that the existence of formalized organizational norms is responsible for a decrease in perceived role ambiguity for this group of administrators. The effects of years experience in higher education administration are expressed both directly and indirectly. Most of the observed effect (-.153) is due to the direct effect (-.251); however, there is also a modest unanalyzed component (.052) due to the correlation between years in higher education administration and age (.385). Experience in roles and positions also helps to decrease ambiguity.

The effects of age are about evenly divided between the direct component (.135) and the unanalyzed component (-.097). Together, these components generate a total reproduced effect of .038, which is almost identical to the observed correlation (.039). For unexplainable reasons, advancing age is associated with a small increase in perceived ambiguity.

Causal Influences on Organizational Commitment

Five causal influences were retained in the trimmed, preferred model. These variables, along with associated summary statistics, are displayed in descending order of the

Table 3

Decomposition of Effects for Each Endogenous Variable and its Antecedents in the Trimmed, Preferred Model (N=362).

Endogenous Variable	Antecedent Variable	Observed Effect	Direct Effect	Indirect Effects	Unanalyzed Effects	Spurious Effects	Total Reproduced Effect	Difference Between[a] Observed and Reproduced Effect
Organizational Commitment (N=348)	Ambiguity	-.538	-.431	-	-.105	.020	-.516	.022
	Sex	-.171	-.176	-.024	.038	-	-.162	.009
	Org.	.320	.167	.005	.079	-.004	.247	.073
	Conflict	-.383	-.163	-	-.150	-	-.313	.070
	Age	.065	.147	-.090	-.008	-	.049	.016
Conflict (N=352)	Formalization	-.237	-.279	-	-	-	-.279	-.042
	Prof. Orient.	.156	.160	.028	-.019	-	.169	-.013
	Org. Level.	-.176	-.141	-	-.107	-.032	-.280	-.104
Ambiguity (N=348)	Formalization	-.466	-.500	-	-	-	-.500	-.034
	Years Admin.	-.153	-.251	-	.052	-	-.199	-.046
	Age	.039	.135	-	-.097	-	.038	.001
Organizational Level (N=351)	Years Admin	.382	.515	.130	-.207	-	.438	-.056
	Job Tenure	-.076	-.348	-.086	.360	-	-.074	.002
	Org. Orient.	.451	.234	-	-.101	.378	.511	-.060
	Prof. Orient.	-.457	-.201	-	.034	-.312	-.479	-.022
Professional Orientation (N=351)	Years Admin.	-.416	-.526	-	.066	-	-.460	-.044
	Job Tenure	-.142	.119	-	-.293	-	-.174	-.032
Organizational Orientation (N=354)	Years Admin.	.287	.556	-	-.216	-	.340	-.053
	Job Tenure	-.048	-.264	-	.223	-	-.041	.007
	Age	-.113	-.188	-	.084	-	-.104	.009
	Sex	-.141	-.138	-	.002	-	-.136	.005

[a] These values represent the magnitude of the discrepancy between the observed correlations and the reproduced correlations. A negative difference indicates that the reproduced correlation was higher than the observed correlation; a positive difference indicates that the reproduced correlation was lower than the observed correlation.

magnitude of their respective Beta weights in Table 2. The Beta weights are synonymous with path coefficients and are entered into Figure 2. These five retained variables include: role ambiguity, sex, organizational role orientation, role conflict, and age. Inspection of Table 2 reveals an adjusted $\bar{R}^2$ of .363 indicating that together these five causal influences explained 36% of the systematic variation in commitment to the university.

The complexity of the interrelationships among these variables is revealed in the decomposition of effects. Results of these analyses are displayed in Table 3. Note that each of the five causal influences exerts direct effects on organizational commitment. Both role stress variables exert negative effects on commitment, but role ambiguity (-.431) has more than twice the effect of role conflict (-.163) for the respondents in this study. A standard deviation increase in perceived ambiguity will produce a corresponding -.431 standard deviation decrease in commitment to the university, when other variables are controlled.

In addition to the direct effects exerted by the two role stress variables, there are significant spurious and unanalyzed effects as well. Role ambiguity has unanalyzed effects totaling -.105, due to the common causes of both role stress variables outside the model. The spurious effect produced by role ambiguity on commitment is due to the common cause of age (.020). Role conflict produces no spurious effect but is associated with a large unanalyzed effect (-.150), again due to common causes outside the model.

The direct effects of sex and age (-.176; .147) suggest that among this group of respondents, being male is associated with a slight decrease in commitment; while advancing age is associated with a small increase in commitment. In addition to the direct effects of sex and age, these causal influences also produce indirect, unanalyzed, and spurious effects as well.

Organizational role orientation exerts a direct effect (.167) and a small indirect effect through organizational level and role conflict (.005) on organizational commitment, In addition, this causal influence produces small spurious effects (-.004) and an unanalyzed effect

(.074) due to common causes of all four correlated exogenous variables in the model (age; sex; job tenure; years in administration).

Discussion of Major Findings

Role Stress

The results of this study provide support for the importance of both individual and organizational characteristics in the development of role stress (Jackson & Schuler, 1985). With respect to role conflict, both indicators of organizational context - organizational level and formalization - exert direct effects. These findings suggest that those in upper-level administrative roles experience somewhat less conflict than those who occupy entry-level and lower-level administrative roles. Formalization exerts a direct effect as well, suggesting that an increase in the perceived existence of organizational norms tends to decrease perceived role conflict.

Professional role orientation is the only individual characteristic to exert a direct effect upon role conflict. This direct, positive effect suggests that the more professionally-oriented administrators experience more conflict. This finding is consistent with much of the research on employed professionals. In this study, it is the existence of professional norms that leads to the development of role conflict, rather than the existence of formalized organizational norms.

With respect to role ambiguity, formalization is the only indicator of organizational context to exert a direct effect. The magnitude of the effect suggests that explicit and formalized norms play an important part in dispelling ambiguity regarding specific role expectations and responsibilities. This study does not support the notion that higher-level organizational roles and positions are characterized by increased ambiguity as suggested by both organizational behavior theorists and the literature on administrator roles (Carroll, 1974; Darkenwald, 1971; Jackson & Schuler, 1985). The two individual characteristics exerting direct effects on role ambiguity are age and years experience in higher education

administration. Interestingly, increased experience tends to decrease perceived role ambiguity, while increasing age tends to increase slightly the perception of ambiguity. The positive effect of age is inconsistent with previous research in other organizations and occupational groupings which has demonstrated weak, negative associations between age and ambiguity (Jackson & Schuler, 1985).

Organizational Commitment

The results obtained in this study indicated that individual characteristics and role stress variables exerted significant influences upon commitment to the university. The variables representing these two categories included: age, sex, organizational role orientation, role conflict and role ambiguity.

Both age and sex were found to exert direct effects on commitment. Increasing age is associated with a corresponding increase in commitment to the university. This finding lends support to the theoretical contention that commitment is a process that unfolds over time. Since women compose only 17% of the sample for this study, it is interesting to note that as a group they are more committed to the university organization than the men who participated. There is no research available to date that can explain this finding. Additional research needs to be undertaken to learn more about the dynamics of commitment which seem to be different for men and women.

An additional indicator of individual characteristics, organizational role orientation, was also found to exert a significant influence upon commitment. Previous socialization into administrative roles, coupled with a preference for activities that are more administrative than "academic" in nature, is associated with an increase in commitment as well.

The two role stress variables both produced negative effects on commitment to the university. The effect of role ambiguity, however, is more than twice the effect produced by role conflict. The results of this study support the theoretical contention that role-related variables, specifically role stress, are determinants of organizational commitment. Roles created by the university may be responsible for creating stress, which in turn, decreases commitment to it.

Implications of the Major Findings

Since the path analysis technique does not confirm a given model, but rather, fails to disconfirm a given model, caution should be exercised in interpretation. There are always alternate models that can fit a set of correlations (Kenny, 1979). Given this caveat, there are some plausible implications that may be drawn from the findings obtained in this study. The application of theory and constructs developed in other disciplinary traditions is helpful in providing insight into the nature of commitment to the university workplace. The major findings suggest that both individual and role-related variables play a role in the development of this commitment.

Specific findings regarding age and sex, suggest that university organizations should make an effort to retain competent administrators and to recruit more qualified women into academic administration. It is equally important to encourage an enlargement in role orientation which considers the university as a whole. Identification of talented individuals who develop a perspective that transcends the academic discipline in which they were originally prepared is important for recruiting individuals into the entry-level administrative positions.

Finally, attention must be paid to the roles created by the university to fulfill its mission. Associated role-requirements and responsibilities could be scrutinized to determine their real and potential contributions to role stress. Minimizing conflict and ambiguity should serve to minimize their subsequent negative impact on commitment to the university workplace.

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Footnotes

1. Details regarding methods and procedures utilized for maximizing response rate and establishing validity of substantive findings are presented in a paper currently in preparation.

Appendices

Appendix A

HIGHER EDUCATION ADMINISTRATOR SURVEY

INSTRUCTIONS

You will note several different scales in the following portions of this booklet. Please respond to the statements in each scale in terms of your particular job/role within the university. Response options differ somewhat. In all cases, however, please indicate your response by circling the number which corresponds to your feelings. Please respond to all items. Feel free to make additional comments in the space provided.

No names appear on the questionnaire; however, you will note a three-digit number in the upper right corner which will facilitate follow-up of non-respondents. Upon completion of follow-up procedures, this information will be discarded. In addition, data will be aggregated in a manner which will prevent identification of individual respondents.

Demographic Information

Directions: Please indicate your responses to the following questions by *circling the appropriate letter* or by *filling in the blank.*

1. Please state your current title _____

   _____

2. What percentage of your time is spent on the following:

   a. Administration _____%

   b. Teaching _____%

   c. Research _____%

   d. other _____% (please specify)

3. In what field or discipline did you receive your highest academic degree? _____

4. Number of years in your current position? _____

5. Total number of years in higher education administration? _____

6. Your age? _____

7. Your gender?

   a. female

   b. male

ROLE ORIENTATION SCALE

Directions: Please respond to each of the following statements and indicate the extent to which you agree or disagree with each. The response options are:

1 Strongly Disagree	2 Disagree	3 Agree	4 Strongly Agree

1.	Being able to pursue a career in administration is very important to me.	1	2	3	4
2.	Having a job which permits me to take on progressively more administrative responsibility is important to me.	1	2	3	4
3.	I would like to assume a position with more administrative responsibility.	1	2	3	4
4.	Except for economic reasons, I have little interest in this university or its future.	1	2	3	4
5.	Recognition from superiors for work well done is important to me.	1	2	3	4
6.	In the near future, I would most like to publish a paper in the leading journal in my profession, even though the topic might be of minor interest to the university.	1	2	3	4
7.	In the long run, I would rather be respected among specialists in my field outside the university.	1	2	3	4
8.	It is important to me that I be able to publish the results of my research in professional journals.	1	2	3	4
9.	Being able to do the kind of research that will contribute to scientific knowledge is very important to me.	1	2	3	4
10.	It is important to me that I be able to pursue and carry out my research ideas.	1	2	3	4

FORMALIZATION SCALE

Directions: Please evaluate each of the following statements and indicate the extent to which it characterizes your particular job/role within the university. The response options are:

1 Definitely NOT TRUE of my job	2	3	4	5	6	7 Definitely TRUE of my job

1.	Performance appraisals are based on written performance standards.	1	2	3	4	5	6	7
2.	Standards of performance and control systems have been established in writing.	1	2	3	4	5	6	7
3.	Schedules, programs or project specifications are used to guide work.	1	2	3	4	5	6	7
4.	My duties, authority and accountability are documented in policies, procedures, or job descriptions.	1	2	3	4	5	6	7
5.	Group rules or guidelines to direct efforts are very clear.	1	2	3	4	5	6	7
6.	Written procedures and guides are available.	1	2	3	4	5	6	7
7.	The university functions according to a written law.	1	2	3	4	5	6	7
8.	Written documents (such as budgets, schedules, project specifications, procedures, or program plans, job descriptions, etc.) are used as an integral part of the job.	1	2	3	4	5	6	7

ROLE CONFLICT AND AMBIGUITY SCALE

Directions: Please evaluate each of the following statements and indicate the extent to which it characterizes your job/role within the university. The response options are:

1 Definitely NOT TRUE of my job	2	3	4	5	6	7 Definitely TRUE of my job

1.	I have enough time to complete my work.	1	2	3	4	5	6	7
2.	I feel certain about how much authority I have.	1	2	3	4	5	6	7
3.	I perform tasks that are too easy or boring.	1	2	3	4	5	6	7
4.	There are clear, planned goals and objectives for my job.	1	2	3	4	5	6	7
5.	I have to do things that should be done differently.	1	2	3	4	5	6	7
6.	There is a lack of policies and guidelines to help me.	1	2	3	4	5	6	7
7.	I am able to act the same regardless of the group I am with.	1	2	3	4	5	6	7
8.	I am criticized or rewarded when I really don't expect it.	1	2	3	4	5	6	7
9.	I work under incompatible policies and guidelines.	1	2	3	4	5	6	7
10.	I know that I have divided my time properly.	1	2	3	4	5	6	7
11.	I receive an assignment without the manpower to complete it.	1	2	3	4	5	6	7
12.	I know what my responsibilities are.	1	2	3	4	5	6	7
13.	I have to oppose rule or policy in order to carry out an assignment.	1	2	3	4	5	6	7
14.	I have to "feel my way" in performing my duties.	1	2	3	4	5	6	7
15.	I receive assignments that are within my capability and training.	1	2	3	4	5	6	7
16.	I feel certain about how I will be evaluated for a raise or promotion.	1	2	3	4	5	6	7
17.	I have just the right amount of work to do.	1	2	3	4	5	6	7
18.	I work with two or more groups that operate quite differently.	1	2	3	4	5	6	7
19.	I know exactly what is expected of me.	1	2	3	4	5	6	7
20.	I receive incompatible requests from two or more persons.	1	2	3	4	5	6	7
21.	I am uncertain as to how my job is linked to other jobs.	1	2	3	4	5	6	7
22.	I do things that are apt to be accepted by one person and not accepted by others.	1	2	3	4	5	6	7
23.	I am told how well I am doing my job.	1	2	3	4	5	6	7
24.	I receive an assignment without adequate resources and materials to execute it.	1	2	3	4	5	6	7
25.	Explanation of what has to be done is clear.	1	2	3	4	5	6	7
26.	I work on unnecessary things.	1	2	3	4	5	6	7
27.	I have to work under vague directives or orders.	1	2	3	4	5	6	7
28.	I perform work that coincides with my values.	1	2	3	4	5	6	7
29.	I do not know if my work will be acceptable to my superior.	1	2	3	4	5	6	7

Please turn to the back page ➤

ORGANIZATIONAL COMMITMENT SCALE

Directions: Please respond to each of the following statements and indicate the extent to which you agree or disagree with each. The response options are:

1 Strongly Disagree	2 Disagree	3 Neither Agree nor Disagree	4 Agree	5 Strongly Agree

1.	I am willing to put forth a great deal of effort beyond that normally expected in order to help this university be successful.	1	2	3	4	5
2.	When I speak with my colleagues, I refer to this university as a great place to work.	1	2	3	4	5
3.	I feel very little loyalty to this university.	1	2	3	4	5
4.	I would accept almost any type of job assignment in order to keep working for this university.	1	2	3	4	5
5.	I find that my values and the university's values are very similar.	1	2	3	4	5
6.	I am proud to tell others that I am part of this university.	1	2	3	4	5
7.	I could just as well be working for a different university as long as the type of work were similar.	1	2	3	4	5
8.	This university really inspires the very best in me in the way of job performance.	1	2	3	4	5
9.	It would take very little change in my present circumstances to cause me to leave this university.	1	2	3	4	5
10.	I am happy that I chose this university to work for, over others I was considering at the time I joined.	1	2	3	4	5
11.	There's not much to be gained by remaining with this university indefinitely.	1	2	3	4	5
12.	I often find it difficult to agree with this university's policies on important matters relating to its employees.	1	2	3	4	5
13.	I really care about the fate of this university.	1	2	3	4	5
14.	For me, this is the best of all possible universities for which to work.	1	2	3	4	5
15.	Deciding to work for this university was a definite mistake on my part.	1	2	3	4	5

ADDITIONAL COMMENTS:

Thank you for taking the time to complete this survey.

Please return to: Christine A. Murphy
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Storrs, CT 06268

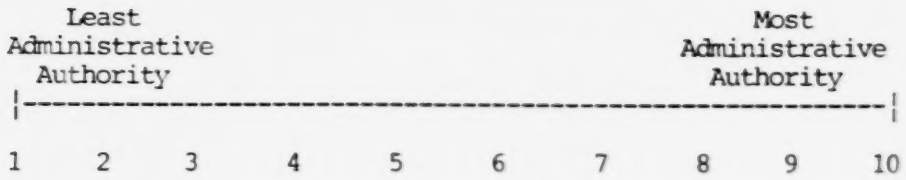
Appendix B

Comparison of Alpha Reliability Estimates Obtained in Current Sample with those Previously Reported (N = 362)

Instrument/Scale		Previously Reported	Current Study
Role Conflict	(8 items)	.82	.80
Role Ambiguity	(6 items)	.81	.81
Organizational Orientation	(5 items)	-	.75
Professional Orientation	(5 items)	-	.88
Formalization	(8 items)	.80-.83	.87
Organizational Commitment	(15 items)	.82-.93	.86

Appendix C

Scale and Descriptors for Variable - Organizational Level



Descriptors

1 - Director (of a small program within an academic department)

2 - Assistant/Associate Academic Department Head/Chair

3 - Academic Department Head/Chair

4 - Director (of an academic division or non-academic department)

5 - Assistant/Associate Dean

6 - Dean

7 - Provost; Assistant/Associate Vice-Presidents/ Chancellors

8 - Vice-President/Vice-Chancellor

9 - Executive Vice President/Vice-Chancellor; Assistant/ Associate to President/Chancellor

10 - President/Chancellor